REMARKS

In light of the remarks to follow, reconsideration and allowance of this application are respectfully solicited.

In the Office Action under reply, claims 1, 8, 11 and 12 were rejected as allegedly anticipated by U.S. Patent 6,128,318 (Sato). Applicant respectfully disagrees with the Examiner's view of Sato for the reasons discussed below. Accordingly, reconsideration and allowance of claims 1, 8, 11 and 12 are respectfully solicited.

Claims 2-7, 9, 10 and 13 were objected to as being dependent upon rejected claims. However, it is respectfully urged that the claims from which claims 2-7, 9, 10 and 13 depend are allowable and, therefore, these dependent claims likewise are in condition for allowance.

New claims 14-34 are submitted to round out the scope of protection to which Applicant is entitled.

It is an object of the present invention to perform cycle synchronization between interconnected sub-networks (see page 2, lines 23-25 of the present application). Claim 1 calls for a reference node connected to one of the sub-networks, which reference node transmits cycle time information to cycle masters of all other sub-networks at reoccurring time instants. This cycle time information transmitted from the reference node permits the cycle masters present in all other sub-networks to adjust their cycle time.

While Sato appears to recognize the concept of a reference node, he does so in two separate contexts that must be carefully distinguished from one another. On the one hand, e.g., col. 1, lines 23-28, Sato notes that each local bus comprises a "local cycle master" that serves to generate and distribute a common cycle clock to all other nodes, i.e., to so-called "cycle slave nodes," on that local bus. On the other hand, e.g., col. 1, lines 29-42, Sato refers to a network

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comprising several sub-networks, wherein the network has a "global" cycle master and each of the sub-networks has a local cycle master of the type previously noted by Sato. It appears that, depending on the context, either the "global" cycle master or a local cycle master could be interpreted as constituting a reference node.

In rejecting claim 1, the Examiner relies on col. 2, lines 2-7 of Sato. This portion of Sato refers to cycle slave nodes and a cycle master node, i.e., to synchronization without the bounds of a local bus, not across separate sub-networks. Accordingly, this teaching of Sato should not be erroneously construed as a reference to the feature of claim 1 wherein a reference node transmits cycle time information to cycle masters of all other sub-networks. Indeed, it moreover appears that the flow of information of Sato, wherein a timer offset value is transmitted from a cycle slave node to a cycle master node (Sato describes a local bus, slave to master), is opposite to the flow of information of claim 1, wherein information is transmitted from a reference node to a plurality of cycle masters (in the network sub-networks, the network/global master transmits to local masters, i.e., to network/global slaves).

Accordingly, Applicant submits that the teachings of Sato have little correlation to the subject matter of independent claim 1.

In rejecting dependent claim 8, the Examiner relies on col. 2, lines 10-11 of Sato. This portion of Sato simply states that "the cycle slave node further includes a timer offset register." It is respectfully submitted, there is no teaching in this portion of Sato that corresponds to the features of claim 8 wherein the cycle time information transmitted by the reference node is a content of its cycle time register.

In rejecting claim 11, the Examiner relies on col. 6, lines 56-60 of Sato. But this portion of Sato is nothing more than the standard omnibus statement found in many patent applications regarding the interpretability of the teachings thereof. While Applicant understands that the Examiner's citation may contain a clerical error, it is nonetheless not apparent to Applicant what teaching of Sato could be interpreted as disclosing the features of claim 11.

Finally, the Examiner relies on col. 7, lines 24-35 and 45-47 (i.e., claims 1 and 2) of Sato to reject independent claim 12. It appears that the Examiner equates the logic circuit in the cycle slave node of Sato with the clock offset estimation means of claim 12 -- the logic circuitry of Sato appears to be interpreted by the Examiner as determining a timing error of a cycle synchronizator's cycle timer, i.e. Sato's logic circuitry determines a timer offset value seemingly indicative of a timing error. However, whereas Applicant's claim 12 stipulates that the cycle synchronizator comprises not only the clock offset estimation means, but also a cycle adjustment loop configured and adapted for receiving the timing error determined by the clock offset estimation means to adjust the cycle synchronizator's own cycle timer. Sato teaches that the aforementioned time offset value is transmitted to the cycle master node, i.e. to another node. This is quite different from the intra-node time correction features of claim 12.
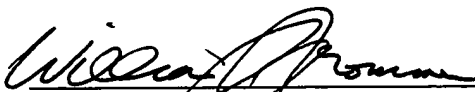
New claims 14-34 are fully described by Applicant's specification and also relate to IEEE P1394.1 which describes the technique wherein a bridge portal receives cycle time information from its co-portal and then instructs the local cycle master to adjust its cycle time accordingly. Hence, the present invention covers the underlying "go fast"/"go slow" cycle time adjustment technique of IEEE P1394.1.

Therefore, the withdrawal of the rejection of claims 1, 8, 11 and 12 is respectfully solicited, along with the continued allowance of claims 2-7, 9-10 and 13, and the examination and allowance of new claims 14-34.

Statements appearing above in respect to the disclosures in the cited references represent the present opinions of the undersigned attorney and, in the event the Examiner disagrees with any of such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

Enclosed are our checks in the amount of $1700 to cover the filing fee for the new claims submitted herewith and $1020 to cover the cost of the extension of time requested herewith. Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,
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